

VI.—First noted in Arizona p. m. of 17th. Its track was due east, and very short, disappearing in Oklahoma p. m. of 20th.

VII.—First noted a. m. of 18th to the north of Washington State. Its motion was eastward, and it was last seen over Newfoundland a. m. of 23d.

VIII.—First noted at the same point as VII, p. m. of 21st. Its motion was in the same line as VII, and it was last noted at the mouth of the St. Lawrence a. m. of 27th.

IX.—First seen p. m. of 26th in extreme southwestern Nebraska. Its track was short, in an east-northeast direction, being last seen in the St. Lawrence Valley a. m. of 30th.

In connection with this storm occurred the severest tornado ever noted in this country, that at St. Louis, Mo., afternoon of 27th. A full description of this tornado, by Mr. Frank- enfield, will be found in the March WEATHER REVIEW, pp. 77-81.

X.—First noted p. m. of 27th in Arizona. Its motion was eastward, being last seen in Arkansas p. m. of 31st.

LOCAL STORMS.

By A. J. HENRY, Chief of Division of Records and Meteorological Data.

The severe local storms of the month, including under that term tornadoes, thunderstorms, high winds, with or without electrical manifestations, occurred on 22 dates, as follows: 2d, 3d, 5th, 9th, 10th, 11th, 12th, 13th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 24th, 25th, 26th, 27th, 28th, 30th, and 31st. The severity of the individual storms varied from that of an ordinary thunderstorm to that of a violent tornado. Tornadoes occurred on 10 dates, viz: 11th, 15th, 17th, 19th, 20th, 24th, 25th, 27th, and 28th (see REVIEW, March, 1896, page 82). The disturbances on the remaining dates were mainly thunderstorms and hailstorms. In some cases the wind attained a high velocity, and much damage was done to barns and outbuildings, and especially to crops.

The following is a brief statement of the general characteristics of the storm dates:

2d.—Thunderstorms occurred in the lower Lake Region and the Ohio Valley; not especially destructive.

3d.—A damaging hailstorm, having a path 2 miles in width, passed through the southern part of Vernon County, Mo.

5th.—Fruit trees and vegetables were reported as being damaged by a severe hailstorm that occurred on the line of the P. W. & B. R. R. between Port Deposit and Bush River, Md.

9th.—From the 5th to the 9th there were no severe storms. From the 9th to the end of the month storms of greater or less severity visited the greater part of the territory east of the Rocky Mountains. There were no violent storms in the Gulf States, with the exception of Texas, nor in the south Atlantic States and New England. This unusual storm period began with thunderstorms in North Dakota and Minnesota, destructive hailstorms in the northeastern portion of South Dakota, and a miniature tornado was reported near Fergus Falls, Minn.

10th.—Thunderstorm conditions prevailed over northern Texas and the Dakotas, but no severe storms occurred. A very severe windstorm was experienced in southern Maine on the night of the 10th; more than 50 barns were wrecked or injured in and about the vicinity of Belgrade, Vienna, and Mt. Vernon, all about 20 miles northwest of Augusta, and at South Jefferson, about the same distance southeast of that city; the loss was probably somewhere near \$30,000.

11th.—Tornadoes were reported from Rice County, Kans., and Worthington, Minn; loss about \$2,000.

12th.—In the West severe windstorms visited portions of Nebraska, Iowa, Kansas, Oklahoma, Texas, Illinois, and Minnesota. Tornadoes also occurred in Nebraska, Kansas, and Texas. In the East severe wind and hail storms prevailed

in Maryland and Virginia. It is not possible to estimate the damage done in the rural districts by wind and hail. Estimates of the damages to buildings, streets, sewers, electric light plants, etc., place the total for the day at \$24,000.

13th.—Heavy wind and rain storms prevailed in Maryland, Virginia, Wisconsin, Iowa, Illinois, Nebraska, Kansas, Missouri, Oklahoma, and Texas. Snow fell on the mountains of western Montana on the same date.

15th.—A series of very destructive tornadoes passed over portions of Denton and Grayson counties, Texas, on the afternoon of this date. Loss of property, \$150,000 to \$200,000. Damages to fences and outbuildings were also reported from portions of Arkansas. A tornado occurred near Moundridge, Kans. (See Special Bulletin, No. 8, of the Texas Service.)

16th.—High winds and heavy rains prevailed throughout portions of Illinois and Iowa. Damage by wind about \$15,000.

17th.—A very destructive tornado visited the counties of Clay, Riley, Marshall, Nemaha, and Brown, Kans., and Richardson, Nebr., on the afternoon of this date. Graves and Marshall counties, Ky., were also the scene of tornadic violence on the same date. The winds throughout Wisconsin and Lower Michigan reached the proportions of a gale. Strong winds were also reported from Buffalo and Niagara, N. Y.

18th.—Severe wind and hail storms prevailed in Maryland and Virginia; houses were unroofed in Baltimore and other points, and many trees were prostrated.

19th.—Severe thunderstorms occurred at a number of points in Missouri. The damage by wind and water in that State, and also in Minnesota and Illinois, was very great. At Eldon and Sedalia, Mo., the losses are reported to have been at least \$50,000.

20th.—Tornadoes occurred in Lyon and Cowley counties, Kans., also near Topeka in the same State, and in Kay Co., Cherokee Strip, Okla. Damages light.

21st.—A heavy thunderstorm damaged buildings, fences, and standing timber in the southern part of Adair County, Ky. Heavy rains in Missouri and southern Kansas caused a general flooding of all the streams and much damage to bottom lands, fences, and bridges.

24th.—Hailstorms occurred in portions of the Dakotas and Minnesota, and destructive tornadoes and floods in Iowa.

25th.—The Iowa storm of the 24th continued throughout northern Illinois, being most severe in Ogle and Winnebago counties, and near Chicago. An independent series of very destructive tornadoes occurred in southeastern Michigan on the evening of the same date.

26th.—Severe wind and rain storms visited portions of Tennessee, Kentucky, Ohio, West Virginia, and Virginia.

27th.—The most destructive tornado in the history of the country passed over St. Louis, Mo., at 6.10 p. m. of this date (see p. 77 March REVIEW). Portions of Indiana and Ohio were also visited by severe and destructive windstorms on the night of the 27th.

28th.—A series of violent thunderstorms passed over Virginia, Maryland, Delaware, Pennsylvania, and New Jersey on the afternoon of this date. In southeastern Pennsylvania tornadoes occurred in two separate localities. The property losses were very great.

30th.—A severe windstorm visited the southern and western sections of Chicago; trees were blown down and a number of outbuildings were damaged.

31st.—High winds accompanied by a heavy downpour of rain were experienced in eastern Kansas and western Missouri on the morning of the 31st.

TEMPERATURE OF THE AIR.

[In degrees Fahrenheit.]

The mean temperature is given for each station in Table